

26th International Conference on Distributed Computer and Communication Networks (DCCN 2023) – AGENDA

September 25 (Monday) – September 28 (Thursday), 2023

Organizers

V.A. Trapeznikov Institute of Control Sciences of RAS (ICS RAS, Russia, Moscow)

Peoples' Friendship University of Russia (RUDN University), Moscow, Russia

Tracks

Track A. Computer and Communication Networks: Architecture, Protocols and Technologies. Chair: Vladimir Vishnevsky. Co-chair: Dmitry Kozyrev.

Track B. Modeling of Distributed Systems and Networks. Chair: Konstantin Samouylov. Co-chair: Irina Kochetkova.

Track C. Distributed Systems Applications. Chair: Andrey Koucheryavy. Co-chair: Ammar Muthanna.

Monday, September 25, 2023	TIME (Moscow time)	DAY 1: Opening, Plenary session (Small conference hall)
	10:00–11:00	REGISTRATION (Reception, Ground floor)
	11:00–11:15	Conference Opening (Small conference hall) Chairman: <i>Vladimir Vishnevsky</i> , ICS RAS
	11:15–11:30	Welcome Speech: <i>Dmitry Novikov</i> , Director, ICS RAS Welcome Speech: <i>Konstantin Samouylov</i> , Director, AMCT Institute, RUDN; <i>Anatoly Nazarov</i> , Professor, Tomsk State University
	11:30–12:10	Holographic telepresence services for public communication networks <i>Andrey Koucheryavy</i> , The Bonch-Bruевич St. Petersburg State University of Telecommunications, Russia
	12:10–12:30	Coffee break
	12:30–13:10	Towards Ultra-High Reliability of Wi-Fi 8 <i>Evgeny Khorov</i> , IITP RAS, Russia
	13:10–14:00	Cybersecurity Benefits of Digital Twins for Intelligent Critical Infrastructures <i>Mohammad Hammoudeh</i> , King Fahd University of Petroleum & Minerals (KFUPM), Saudi Arabia
	14:00–15:00	Break
	15:00–16:00	Numerical Study of Queuing-Inventory Systems with Catastrophes under Base Stock Policy <i>Agassi Melikov</i> , Institute of Control Systems, National Academy of Science, Azerbaijan
	16:00–17:00	Power and Performance in Parallel Processing <i>Alexander Rumyantsev</i> , Institute of Applied Mathematical Research, Karelian Research Center of the Russian Academy of Sciences, Russia

Tuesday, September 26, 2023	TIME (Moscow time)	DAY 2: Track sessions		
	10:00–11:00	REGISTRATION (Reception, Ground floor)		
		A.1.1. Computer and Communication Networks: Architecture, Protocols and Technologies <i>Chairs: Prof. V.Vishnevsky, Prof. K.Samouylov</i> Room 7	B.1.1. Analytical modeling of Distributed Systems and Networks <i>Chairs: Prof. A.Dudin, Dr. I.Kochetkova</i> Room 9	C.1.1. Distributed Systems Applications <i>Chairs: Prof. A.Koucheryavy, Dr. A.Muthanna</i> Room 10
	11:00–11:20	Mohammed Muthanna Influence of Access Points' Height and High Signal Relation in WLAN Fingerprinting-Based Indoor Positioning Systems' Accuracy (ID 2161)	Vidyottama Jain A Semi-Markov Approach for Reliability Analysis of High- Altitude Platforms	Ammar Muthanna, Andrey Koucheryavy Revolutionizing H2M Interaction: Telepresence System Enabling Sign Language Expansion for Individuals with Disabilities (ID 2167)
	11:20–11:40	Nikita Mittal Enhancing power efficiency through semi-markov modeling of Narrowband Internet of Things devices in 5G networks (ID 1926)	Greeshma Joseph, Varghese Jacob, Achyutha Krishnamoorthy On queuing systems with N policy and various server activation strategies (ID 1881)	Artem Volkov, Andrey Koucheryavy, Daniil Svechnikov Efficient Transmission of Holographic Images: A Novel Approach Toward 6G Telepresence Services (ID 2165)
	11:40–12:00	Ilya Levitsky, Sergei Tutelian, Aleksey Kureev, Evgeny Khorov Semi-orthogonal Precoder for Improving Throughput and Fairness in Downlink NOMA-MIMO Systems (ID 1973)	Ádám Tóth, János Sztrik The simulation of finite-source retrial queues with two- way communication to the orbit using a backup server (ID 1861)	Aleksandr Sokolov, Andrey Larionov, Amir Mukhtarov Distributed system for scientific and engineering computations with problem containerization and prioritization (ID 2157)
	12:00–12:20	Aleksander Kalachikov Numerical Evaluation of the Optimal Precoder Design for Mobile Users in MISO System (ID 1983)	Alexander Dudin, Olga Dudina Model of operation of a cell of a mobile communication network with adaptive modulation schemes and batch arrivals (ID 1905)	Vilmen Abramian, Ivan Fedotov, Andrey Larionov Overview of research works on applications of UHF RFID on vehicles for data transmission (ID 2086)
	12:20–12:40	Dmitriy Kim, A.M. Turlikov, N.V. Markovskaya Minimization of peak age of information in LoRaWAN- based monitoring systems (ID 1974)	Vladimir Vishnevsky, Olga Semenova, Van Hieu Nguyen, Minh Cong Dang Batch Service Polling System: Mathematical and Simulation Modeling (ID 2010)	Sergey Melnikov, Konstantin Samouylov, Andrey Zyazin On the identification of a finite automaton by its input and output sequences in case of distortions (ID 1891)
	12:40–13:00	Mark Bulygin, Dmitry Namiot On Reports in Open Transport Data Analysis Platform (ID 1876)	Vladimir Vishnevsky, Olga Semenova, Minh Cong Dang, Van Hieu Nguyen Multiphase queuing system with blocking and single common orbit retrial queue with limited buffer (ID 2021)	Konstantin Kostiukhin, Vladimir Galatenko Применение аппаратных счетчиков производительности для выявления угроз информационной безопасности приложений (ID 1874)
	13:00–13:30	Coffee break		

Tuesday, September 26, 2023		A.1.2. Computer and Communication Networks: Architecture, Protocols and Technologies <i>Chairs: Prof. Yu. Gaidamaka, Dr. D. Ostrikova</i> Room 7	B.1.2. Analytical modeling of Distributed Systems and Networks <i>Chairs: Prof. S. Stepanov, Dr. E. Sopin</i> Room 9	C.1.2. Distributed Systems Applications <i>Chairs: Prof. D. Namiot, Prof. D. Kulyabov</i> Room 10
	13:30–13:50	Elena Zbankova, Varvara Manaeva, Ekaterina Markova, Yuliya Gaidamaka The Peak Age of Information of URLLC service in 5G NR Systems (ID 1880)	Viktor Stepanov, Anastasia Daraseliya, Eduard Sopin On Comparison of Waiting Buffer Scheduling Methods in a Resource Loss System (ID 1826)	Li Huayui, Vasily Kostyumov, Oleg Pilipenko, Dmitry Namiot On the Evasion Attack Detector (ID 1914)
	13:50–14:10	Olga Morozova, Margarita Orlova, Nikita Naumov, Leonid Abrosimov Towards a new format of datasets in traffic analysis (ID 1848)	Mikhail Stepanov, Sergey Stepanov, Margarita Kanishcheva, Fedor Kroshin Analysis of Procedures to Ensure the Required QoS Indicators in Multiservice Access Nodes (ID 1866)	Junzhe Song, Dmitry Namiot On the Machine Learning Models Inversion Attack Detector (ID 1916)
	14:10–14:30	Daniil Yarchuk, Margarita Orlova, Leonid Abrosimov Решение для аутентификации устройств пользователей в корпоративной беспроводной сети университета с помощью механизма IEEE 802.1x (ID 1837)	Vladislav Feoktistov, Dmitry Nikolaev, Yuliya Gaidamaka, Konstantin Samouylov Задача анализа вероятностных характеристик системы интегрированного доступа и транзита (ID 2025)	Eugene Yu. Shchetinin, Leonid Sevastianov, Anastasia Glushkova, Anastasia Demidova On classification of the cytological images of leukocytes with transfer deep learning models (ID 1857)
	14:30–14:50	Abdukodir Khakimov, Vyacheslav Begishev, Evgeny Mokrov, Anatoliy Prikhodko, Alexander Shurakov, Gregory Goltsman Characterizing Blockage Statistics of Reflected Propagation Paths in sub-THz Indoor Communications (ID	Faina Moskaleva Об одной модели обслуживания базовой станцией комбинации двух типов трафика с учетом нарушения прямой видимости (ID 2040)	Olga Kochueva, Ruslan Akhmetzianov Machine Learning-Based Models for the Compressibility Factor of Natural Gas (ID 1991)
	14:50–15:10	Svetlana Dugaeva, Vyacheslav Begishev, Nikita Stepanov Application Identification in mmWave/THz Systems via Machine Learning Algorithms (ID 1872)	Valentina Klimenok, Vladimir Vishnevsky, Andrey Larionov, Anastasia Gorbunova, Aleksandr Sokolov Исследование fork-join системы с марковским входным потоком и распределением времени обслуживания фазового типа (ID 2034)	Н.И. Вьюкова, Vladimir Galatenko, Anton Pavlov, Sergej Samborskij Поиск корректного отображения параллельных вычислений на систему с коммутационной средой RapidIO методами ЦЛП (ID 1884)
	15:10–15:30	Alexandr Syrtsov, Ekaterina Bobrikova, Irina Yartseva, Vsevolod Shorgin, Yuliya Gaidamaka К прогнозированию качества радиоканала между БПЛА в рое с применением многослойной нейронной сети (ID 1976)	Alexey Bergovin, Vladimir Ushakov Приоритетная система обслуживания с профилактиками прибора в общих предположениях на управляющие последовательности (ID 1867)	Andrey Kostogryzov Анализ полноты и актуальности выходной информации в распределенных компьютерных и телекоммуникационных системах, обеспечивающих проведение избирательных кампаний (ID 1982)
	15:30–15:50	Break		Aleksandr Soldatenko, Daria Semenova, Ellada Ibragimova About heuristic algorithm for Correlation Clustering problem solving (ID 1871)
	15:50–16:00			

Tuesday, September 26, 2023			B.1.3. Analytical modeling of Distributed Systems and Networks <i>Chair: Prof. N.Markovich, Prof. A.Mandel</i> Room 9	
	16:00–16:20		A. Kozhan, Viktor Laptin, Alexander Mandel Myopic Inventory Control with Returns in Case of Uncertainty: Adaptive Algorithms (ID 1877)	
	16:20–16:40		Natalia Markovich, Maksim Ryzhov Information Spreading in Non-homogeneous Evolving Networks with node and edge deletion (ID 1817)	
	16:40–17:00		Oleg Lukashenko On the variance reduction methods for estimating the reliability of the multi-phase Gaussian degradation system (ID 1890)	
	17:00–17:20		Irina Peshkova Об экстремальном индексе стационарного времени ожидания в системах GI/G/1с неоднородными входными потоками (ID 1898)	

Wednesday, September 27, 2023	TIME (Moscow time)	DAY 3: Track sessions		
		A.2.1. Computer and Communication Networks: Architecture, Protocols and Technologies <i>Chairs: Prof. K.Vytovtov, Prof. E.Barabanova</i> Room 7	B.2.1. Analytical modeling of Distributed Systems and Networks <i>Chairs: Prof. A.Nazarov, Prof. S.Moiseeva</i> Room 9	
	11:00–11:20	Anna Fominykh, Andrei Ovchinnikov Estimation of MAP component decoding of product codes in two-state channels (ID 1879)	Anatoly Nazarov , Ivan Lapatin, Svetlana Paul Модель работы процессора в условиях конкуренции за вычислительный ресурс (ID 1971)	
	11:20–11:40	Alexander Shiroky Risk management in the design of computer network topology (ID 1917)		
	11:40–12:00	Andrey Nistratov Об архитектурных решениях, ориентированных на прогнозирование и рациональное управление рисками в системной инженерии (ID 1889)	Любовь Задиранова Математическая модель двухэтапного производственного процесса в виде двухфазной СМО с двумя входящими пуассоновскими потоками и обратной связью (ID 1869)	
	12:00–12:20	Andrey Nistratov Вероятностное моделирование сопровождаемого цифрового двойника фрагментов магистральной трубопроводной сети для упреждающего противодействия природным угрозам (ID 1887)	Artem Podgainov, Maria Shklennik Метод марковского суммирования для исследования суммарного потока повторных обращений в многофазной системе массового обслуживания с обратной связью (ID 1885)	
	12:20–12:40	Alexey Abramov, Konstantin Mikhailov Мониторинг и анализ трафика сетей передачи данных в крупных распределенных инфраструктурах на основе технологии NetFlow (ID 1860)	Ekaterina Pakulova, Svetlana Moiseeva, Alexander Moiseev, Светлана Чижикова Модель гетерогенной системы передачи данных с очередью и переключением каналов (ID 1980)	
	12:40–13:00	Elena Gibadullina Automated planning for service configuration management in IP/MPLS networks (ID 1986)	Anna Vetkina, Людмила Нежелская Maximum Likelihood Estimation of the Dead Time Distribution Parameter in Recurrent Semi-Synchronous Doubly Stochastic Events Flow (ID 2033)	
	13:00–13:30	Coffee break		

Wednesday, September 27, 2023			B.2.2. Analytical modeling of Distributed Systems and Networks <i>Chairs: Prof. V.Rykov, Dr. D.Kozyrev</i> Room 9	
	13:30–13:50		Sergey Sushchenko Вероятностные характеристики процесса соперничества за полосу пропускания тракта передачи данных на уровне транспортного протокола с селективным режимом повтора (ID 1928)	
	13:50–14:10		Elizaveta Barabanova, Konstantin Vytovtov Analysis of an MAP/M/n/m queue with periodic and non-periodic piecewise constant input rate (ID 1988)	
	14:10–14:30		Elizaveta Barabanova, Konstantin Vytovtov, Anastasia Fedorovskaya Mathematical models for reliability analysis of all-optical switches (ID 1989)	
	14:30–14:50		Vladimir Vishnevsky, Elizaveta Barabanova, Konstantin Vytovtov, Georgiy Vytovtov Investigation of tethered unmanned high-altitude platform reliability (ID 1990)	
	14:50–15:10		Vladimir Bogatyrev, Stanislav Bogatyrev, Anatoly Bogatyrev Adaptive redistribution of traffic heterogeneous in acceptable delays with transmission replication during route reconfiguration in nodes connecting segments of multipath networks (ID 1897)	
	15:10–15:30		Vladimir Bogatyrev, Anatoly Bogatyrev, Stanislav Bogatyrev Readiness for timely execution of requests in fault-tolerant clusters with information recovery based on replication and backup (ID 1900)	
	15:30–16:00	Break		

Wednesday, September 27, 2023			B.2.3. Analytical modeling of Distributed Systems and Networks <i>Chairs: Prof. D.Efrosinin, Prof. V.Rykov</i> Room 9	
	16:00–16:20		Dmitry Efrosinin, Vladimir Vishnevsky, Natalia Stepanova A Machine-learning approach to queue length estimation using tagged customers emission (ID 2035)	
	16:20–16:40		Stepan Rogozin The regenerative stability analysis of some vacation models (ID 1895)	
	16:40–17:00		Vladimir Rykov, Nika Ivanova On Reliability Function of a k-out-of-n Model in Case of Quick Recovery of Its Components (ID 2002)	
	17:00–17:20		Dzmitry Kopats G-сеть состоящая из ненадёжных систем с контрольными и карантинными очередями и возможностью перемещения отрицательных заявок между системами сети (ID 1933)	
	17:20–17:40		Galina Zverkina About quasi-renewal processes and quasi-regenerative processes (ID 2008)	

Thursday, September 28, 2023	TIME (Moscow time)	DAY 4: Round Table and Conference Closing
	11:00–12:30	<p>Round Table with the participation of young scientists: Future networks 2030, artificial intelligence and big data (Круглый стол с участием молодых ученых по вопросам сетей 2030, искусственного интеллекта и больших данных)</p> <p><i>Chairs: Prof. Vladimir Vishnevsky, Prof. Konstantin Samouylov</i></p>
	12:30–12:45	Conference Closing